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PRICE SPREADS FOR BEEF AND PORK

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Marketing Research Division

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PRICE SPREADS FOR BEEF AND PORK 1/

: Farm-retail price spreads for U. S. Choice grade beef and for :
: pork reached new highs in 1958. 2/ Spreads for beef were :
: about 12 percent greater in 1958 than in 1957, the biggest :
: year-to-year increase in the annual average since that from :
: 1947 to 1948. Farm-retail spreads for pork increased by :
: about 3 percent from 1957 to 1958.
:
: Both the retail price and farm value of Choice grade beef in :
: 1958 were the highest since 1952. For pork, the retail price :
: equaled the record level of 1954. Farm values for pork in :
: 1958 averaged 13 percent lower per pound (retail weight) than :
: the record level of 1947 but almost 12 percent greater than :
: the 1957 farm value.
:

Beef

Farm-Retail Spreads

Farm-retail spreads for U. S. Choice grade beef increased from an annual average of 27.6 cents per pound (retail weight) in 1957 to 31.0 cents in 1958 (fig. 1). This rise was the largest year-to-year increase in the annual average since the rise of 27 percent from 1947 to 1948. It was more than twice the percentage increase from 1956 to 1957.

The farm-retail spread in 1958 was 38 percent wider than in 1951 when consumers were paying the highest price in history for U. S. Choice grade beef. The annual average farm-retail spread has risen each year since 1954 when the average of 24.3 cents was 1 cent below the preceding year. It increased to 25.3 cents per pound of beef sold by retailers in 1955 and to 26.2 cents in 1956. Cattle slaughter increased substantially during 1955-56, causing farm prices to drop, but retail prices declined only slightly.

Since 1956, estimated annual average prices for U. S. Choice grade beef have risen at the farm, wholesale, and retail levels. The increases in the farm-retail margin during the last 2 years reflected the widening in the wholesale-retail margin. The live-wholesale spread decreased during this period.

1/ Prepared by Victor B. Phillips and Betty Sue Pence, Agricultural Economists, Market. Res. Div., Agr. Market. Serv.

2/ The marketing margin or farm-retail price spread is the difference between the price per pound the consumer pays for beef or pork at retail and the farm value or payment the farmer receives for an equivalent quantity of live animal. It is a gross return to marketing agencies for the distributing and processing services required to move live animals from the farm and to convert them to meat in the consumer's hands.

Retail Prices

Retail prices of Choice grade beef in 1958 averaged 81.0 cents per pound (fig. 1). This was 10.4 cents higher than in 1957, 6.3 cents higher than the 1951-58 average but 7.2 cents below the record annual average of 88.2 cents in 1951. This record was established during the expansion phase of the 1949-58 production cycle in a year when cattle slaughter was exceptionally low. By 1953, however, as the cattle cycle approached the end of the expansion phase, retail prices had dropped by 22 percent. During the latter part of 1953, retail prices regained part of their earlier losses. They remained relatively stable at about 68 cents per pound throughout 1954 and 1955. Beginning with the second quarter of 1956, retail prices trended upward, reaching a high of 82.8 cents per retail pound in the second quarter of 1958.

U.S. Choice Grade Beef

FARM AND RETAIL VALUES AND MARKETING MARGIN

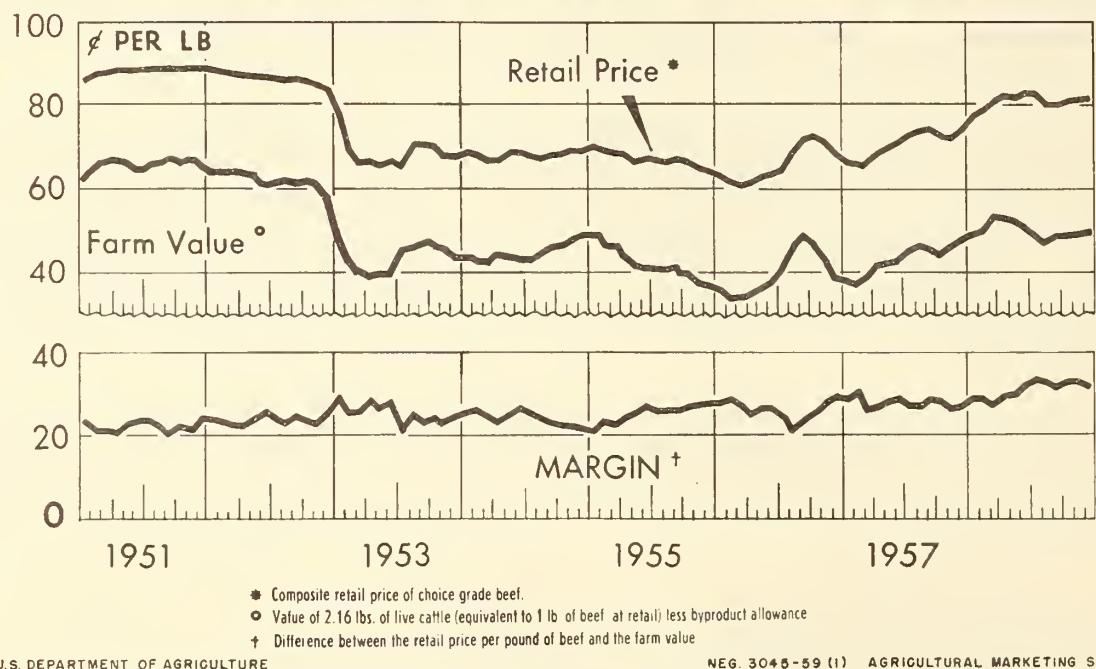


Figure 1

Farm Value

The farm value of U. S. Choice grade beef in 1958 averaged 50.0 cents per pound (retail weight basis), 7 cents above 1957 (fig. 1). ^{3/} The 1958 average was about 16 cents lower than the record in 1951. As in 1951, increasing farm values in 1957 and in 1958 reflected reduced beef cattle supplies from the previous year. Beef production decreased about 2 percent in 1957 and 6 percent in 1958.

Expansion in cattle slaughter in 1952 and 1953 brought a decline in the farm value and retail price. Cattle slaughter increased from 17 million head in 1951 to more than 24 million head in 1953. Farm values increased slightly in 1954 while retail prices continued to decline and marketing margins were "squeezed." During 1955 and 1956, margins again widened as farm values of U. S. Choice grade beef dropped at a much faster rate than retail prices. Large and increasing supplies of beef and other meats were mainly responsible for these reductions in price at the farm level.

Live-Wholesale Spreads

Movements of the live-wholesale and wholesale-retail spreads -- the components of the farm-retail price spread -- were roughly parallel during 1951-58. They got out of step occasionally in the short run, generally because prices at one level of marketing were slow in responding to changes in prices at the other.

The live-wholesale spread -- the charges for the slaughtering and wholesaling functions of the marketing job -- averaged \$2.29 per 100 pounds live weight in 1958, 44.0 cents less than in 1957 (table 3). ^{4/} Wholesale prices of beef carcasses and prices of beef cattle in 1958 were the highest since 1951. Prices of steers at public stockyards increased by \$4.13 per 100 pounds live weight from 1957 to 1958 and the average wholesale value of carcass and byproducts rose \$3.69. Reduction in the supply of slaughter cattle was closely associated with these increases in prices.

^{3/} The farm value is the payment farmers receive for the quantity of live steer equivalent to 1 pound of Choice grade beef in the retail store. It is the price per pound received by farmers calculated on a retail-weight basis.

^{4/} The live-wholesale spread is the difference between the average public stockyard price per 100 pounds for Choice grade steers and the average value of 59 pounds of carcass beef plus the byproducts (heart, liver, tallow, hide, etc.).

Table 3.- Beef (Choice grade): Live-wholesale and wholesale-retail spreads, by quarters, 1957-58 1/

Quarter	Live-wholesale (per 100 pounds live weight)				Wholesale-retail (per 100 pounds carcass weight)			
	Price of steers 2/	Wholesale value			Spread	Wholesale price 4/	Retail value 5/	Spread
		Carcass 3/	Byproducts	Total				
		Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
<u>1957</u>								
Jan.-Mar.	20.84	21.48	1.92	23.40	2.56	36.40	53.12	16.72
Apr.-June	22.05	23.39	2.15	25.54	2.69	39.65	55.76	16.11
July-Sept.	24.30	25.15	2.30	27.45	3.15	42.62	58.56	15.94
Oct.-Dec.	24.27	24.68	2.06	26.74	2.47	41.83	58.48	16.65
Average	23.06	23.68	2.11	25.79	2.73	40.12	56.48	16.36
<u>1958</u>								
Jan.-Mar.	27.09	27.36	2.17	29.53	2.44	46.37	63.04	16.67
Apr.-June	28.46	27.98	2.40	30.38	1.92	47.43	66.24	18.81
July-Sept.	26.39	26.64	2.35	28.99	2.60	45.16	65.04	19.88
Oct.-Dec. 7/	26.81	26.67	2.34	29.01	2.20	45.20	64.72	19.52
Average 7/	27.19	27.16	2.32	29.48	2.29	46.04	64.76	18.72

1/ Quarterly data for 1949-55 are published in "Beef Marketing Margins and Costs," U. S. Dept. Agr. Misc. Pub. 710, Feb. 1956, tables 1 and 3.

2/ Weighted average of price at 21 leading public stockyards.

3/ Wholesale carcass value is 59 percent of average wholesale price of 100 pounds of Choice grade carcass beef.

4/ Weighted average of prices of Choice grade carcass beef in New York, Chicago, Los Angeles, San Francisco, and Seattle.

5/ Calculated from average retail prices of beef cuts in urban areas, published by Bur. of Labor Statistics. The retail value per 100 pounds carcass weight is 80 percent of average retail cost of 100 pounds of retail cuts, because about 20 pounds of a 100-pound carcass is fat, bone, and trim which is sold by retailers at nominal prices.

6/ Revised.

7/ Preliminary

Table 4.- Pork: Live-wholesale and wholesale-retail spreads, by quarters, 1957-58 1/

Quarter	Live-wholesale (per 100 pounds live weight)				Wholesale-retail (per 100 pounds major cuts)			
	Price of hogs 2/	Wholesale value 3/	Spread		Wholesale price 4/	Retail price 5/	Spread	
			Dollars	Dollars				
<u>1957</u>								
Jan.-Mar.	17.76	23.45	5.69	42.70	56.57	13.87		
Apr.-June	19.09	24.35	5.26	45.20	59.21	14.01		
July-Sept.	20.77	26.49	5.72	49.16	65.16	16.00		
Oct.-Dec.	18.08	23.73	5.65	43.56	58.92	15.36		
Average	18.92	24.50	5.58	45.16	59.96	14.80		
<u>1958</u>								
Jan.-Mar.	20.59	26.19	5.60	48.66	62.85	14.19		
Apr.-June	22.65	28.11	5.46	51.90	66.04	14.14		
July-Sept.	21.85	27.74	5.89	51.28	67.24	15.96		
Oct.-Dec. 7/	18.97	24.74	5.77	45.47	62.08	16.61		
Average 7/	21.02	26.70	5.68	49.33	64.55	15.22		

1/ Quarterly data for 1949-55 are published in "Pork Marketing Margins and Costs," U. S. Dept. Agr. Misc. Pub. 711, Apr. 1956, tables 1 and 2.

2/ Average price of 200-220 pound barrows and gilts, Chicago.

3/ Wholesale value at Chicago of 71 pounds of pork and lard obtained from 100 pounds of live hog.

4/ Wholesale price of 100 pounds of major pork cuts at Chicago computed from Livestock Market News and National Provisioner price quotations of individual cuts.

5/ Calculated from average retail prices of major pork cuts in urban areas, published by Bur. of Labor Statistics.

6/ Revised.

7/ Preliminary.

Wholesale-Retail Spreads

The wholesale-retail spread for beef reached an alltime high in 1958 at an annual average of \$18.72 per 100 pounds carcass weight (table 3). ^{5/} During 1954-58 the wholesale-retail spread widened steadily but it increased most during the last 2 years of this period. In 1958 it was about 14 percent wider than in 1957 and more than 26 percent wider than in 1956.

Pork

Farm-Retail Spread

The 1958 annual average farm-retail spread for pork (excluding lard) set a new high of 27.7 cents per pound retail weight, 0.7 cent more than in 1957 and about 3.0 cents more than the 1951-58 average (fig. 2). Since 1953, when it was 22.5 cents, the farm-retail spread has widened every year except 1956 when it declined by less than 1.0 cent per retail pound. It increased by about 6 percent in 1954. During 1955, the decline in retail prices did not keep pace with rapidly falling farm values, causing the spread to widen to an average of 25.6 cents per pound. Spreads averaged slightly lower in 1956 than in 1955, dropping 0.7 cent from the 1955 level. This relatively small decrease resulted from slight decreases in both live-wholesale and wholesale-retail gross margins.

Farm-retail spreads usually have been about the same for beef and pork. From 1957 to 1958, however, the increase in the spread for beef in cents per retail pound was about five times that for pork. The percentage increase for pork was about 3 percent compared with about 12 percent for beef. Increases in both the live-wholesale and wholesale-retail spreads accounted for the widening in the farm-retail spread for pork during 1958.

Retail Prices

Retail prices of pork in 1958 averaged 64.8 cents per pound, an increase of 4.6 cents over 1957. The 1958 average equaled the record annual average established in 1954 and was 5.2 cents more than the 1951-58 average.

From 1954 to 1955 retail prices dropped sharply, causing a decline in the annual average of 10 cents per retail pound. The low for the 1951-58 period was reached in 1956, when retail prices averaged 52.1 cents. Retail prices in 1958 were 24 percent higher than the 1956 level and about 8 percent higher than in 1957.

^{5/} The wholesale-retail spread is the difference between the average wholesale carcass price per 100 pounds of U. S. Choice grade beef and the value of 80 pounds of retail cuts. (About 20 pounds of a 100-pound carcass is fat, bone and trim which the retailer sells at nominal prices.) This spread or margin covers the services retailers provide in fabricating carcasses into smaller cuts suitable for retail trade.

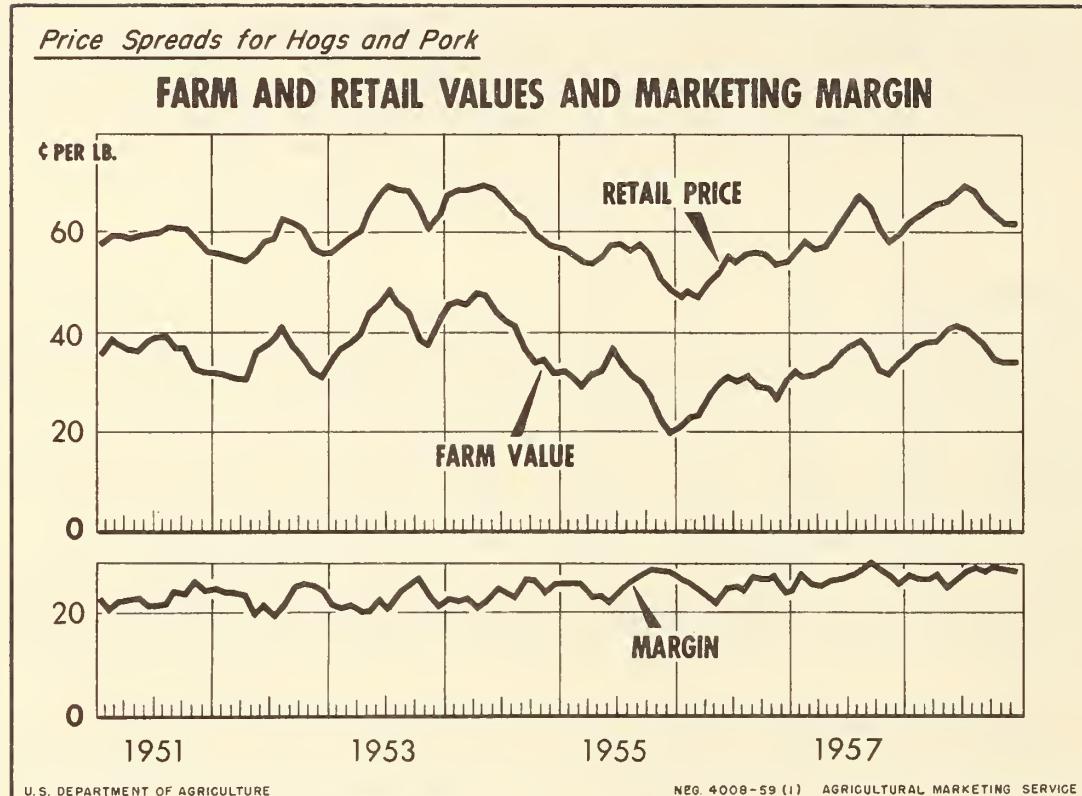


Figure 2

Farm Value

The farm value of pork averaged 37.1 cents per pound (retail weight) in 1958, about 12 percent higher than in 1957. ^{6/} Prices of barrows and gilts, which mainly determine the farm value of pork, were higher in 1958 than in any year since 1954.

In 1954, when pork production dropped to less than 10 billion pounds, farm values were at a high of 41.0 cents per retail pound. During the following 2 years, production of pork increased by about 14 percent to more than 11 billion pounds in 1956, when the expansion phase of the hog production cycle ended. Farm values dropped by 34 percent during this period (1954-56). In 1957 and 1958, hog slaughter declined, chiefly because producers chose to retain more of their gilts for expansion purposes, and farm values increased.

^{6/} The farm value is payment farmers received for the quantity of live hog equivalent to 1 pound of pork in the retail store. It is the price per pound received by farmers calculated on a retail-weight basis.

Live-Wholesale Spread

In 1958, the live-wholesale spread for pork averaged \$5.68 per 100 pounds live weight, 10.0 cents more than in 1957 (table 4). ^{7/} Changes in this spread during the year were due primarily to seasonal factors. For example, during the fall and winter months of 1957 and 1958, when hog marketings increased seasonally, the live-wholesale spread widened; during the spring and summer when marketings declined, it narrowed.

When hog marketings are high, the demand for hog marketing services is high. The supply of these marketing services, which is dependent on labor supply, plant, and equipment, is rather inflexible in the short run. This inflexibility tends to exert an upward pressure on charges for marketing services. The converse tends to be true when hog marketings are light.

Wholesale-Retail Price Spread

Retail spreads and average retail values for pork in 1958 both increased over 1957. The retailer's spread reached a record annual average of \$15.22 per 100 pounds carcass weight, an increase of about 3 percent over 1957 (table 4). ^{8/} Retail values climbed to a near record of \$64.55, about 8 percent above those of a year earlier. Wholesale prices also were higher in 1958, averaging \$49.33 per 100 pounds of major pork cuts. The widening in the wholesale-retail spread for pork during 1957-58 reflected the greater increases in retail values than in wholesale prices.

Some Factors Associated with the Uptrend in Price Spreads

Farm-retail spreads for beef increased by about 38 percent during 1951-58, and spreads for pork widened over 20 percent. However, price spreads for both species fluctuated over short periods. The longest and most pronounced downward movement in the spread for beef was during the latter half of 1954 and for pork from the end of 1955 to the middle of 1956. These fluctuations were mainly dependent upon factors which caused short-term changes in retail prices of meat and farm prices of meat animals. On the other hand, the year-to-year and longer term movements in farm-retail price spreads were for the most part related to the increased costs of providing marketing services. Farm-retail spreads for meat products increased by 44 percent over the last decade and by 7 percent from 1957 to 1958.

The principal factors underlying year-to-year and longer term changes in farm-retail price spreads appear to be the increased costs of transportation, labor, and equipment, coupled with costs of added marketing services which consumers seem to want and for which they are willing to pay. These cost items are embodied in three rather broad functional operations: Marketing livestock, packing-wholesaling, and retailing.

^{7/} The live-wholesale price spread (or packer spread) for pork is the difference between the live weight price of hogs per 100 pounds and the wholesale value of 47 pounds of major fresh and cured cuts which include hams, loins, picnics, butts, and spare ribs, about 9 pounds of minor edible products, such as neck bones, trimmings, fat, head meat, heart, and liver, and 15 pounds of lard. These quantities are approximate yields of wholesale products from 100 pounds of live hog.

^{8/} The wholesale-retail price spread or retailer spread is the difference between the average wholesale price and retail price of 100 pounds of fresh and cured pork products.

Cost of marketing livestock, including the charges for truck and rail transportation and for services at livestock markets, has increased over the last 10 years. Rail freight rates for livestock were about two-fifths higher in 1957 than in 1948 9/ and the railroads increased their freight rates again in 1958. 10/ In recent years, the major proportion of livestock has been transported to market by truck. While data are not available on changes in truck rates, it was recently reported that most regulated interstate truckers raised their rates during the period August 1957-February 1958. Exempt haulers probably raised their rates also, though even less rate information regarding these haulers is available.

The second broad function is slaughtering, processing, and wholesaling. Between 1947 and 1956, gross margins in the meatpacking industry increased substantially relative to sales according to an industry report, but they dropped slightly in 1957. 11/ The meatpacker's gross margin covers the slaughtering and processing and the major share of the wholesaling function. More specifically, the packer's margin includes wages and salaries, supplies and containers, transportation, taxes, depreciation, interest, other expenses, and profits.

The margin for retailing, the third broad function, covers the costs of fabricating carcasses and wholesale cuts into smaller cuts available for retail trade. According to a report published by the Department of Agriculture, wages and salaries comprise about two-thirds of the total costs of retailing meats. 12/ Data available from various trade associations indicate that in recent years gross margins of meat departments in retail food stores generally have been around 18 to 20 percent of sales. Since 1949, the retailer's margin, on a per 100-pound wholesale weight basis, has increased about 48 percent for pork and almost 57 percent for beef.

The processing and distribution of meat have become more efficient in recent years. According to an industry report, the number of hours of labor required to convert animals from the farm to meat for the consumer has decreased. Meat slaughtered, in total pounds live weight, by the wholesale meat industry increased 17 percent between 1947 and 1954 with little increase in the labor force in the industry. Retailing of meat increasingly has become a self-service operation. Mass procurement by food chains and cooperative wholesale-retail organizations has improved efficiency in the transfer of meat from packinghouses to retail outlets. Fundamental structural and organizational changes in the meat wholesaling and retailing industries have, according to a recent report, accentuated this trend. 13/ These improvements in efficiency, however, have not been enough to overcome the rising costs of the input factors which must be used to provide the marketing services consumers indicate they want and need.

9/ "Annual rail freight rate indexes for selected agricultural commodities," Transportation and Facilities Branch, Agr. Market Serv.

10/ "Recent Rail Freight Rate Increases," by Celia Sperling and Clem C. Linnenberg, Jr., The Marketing and Transportation Situation, Agr. Market. Serv., Apr. 1958.

11/ "Financial Facts About the Meat Packing Industry, 1957," issued by American Meat Institute, July 1958.

12/ Farstad, Edmund, and Brensike, V. John, "Cost of Retailing Meats in Relation to Volume." U. S. Dept. Agr., Market. Res. Rpt. 24, Aug. 1952.

13/ Williams, Willard F., "Structural Changes in the Meat Wholesaling Industry," Journal of Farm Economics, Vol. 15, May 1958, pp. 315-29.

